(54) Title: ANONYMOUS DEBIT ACCOUNT SYSTEM AND METHOD
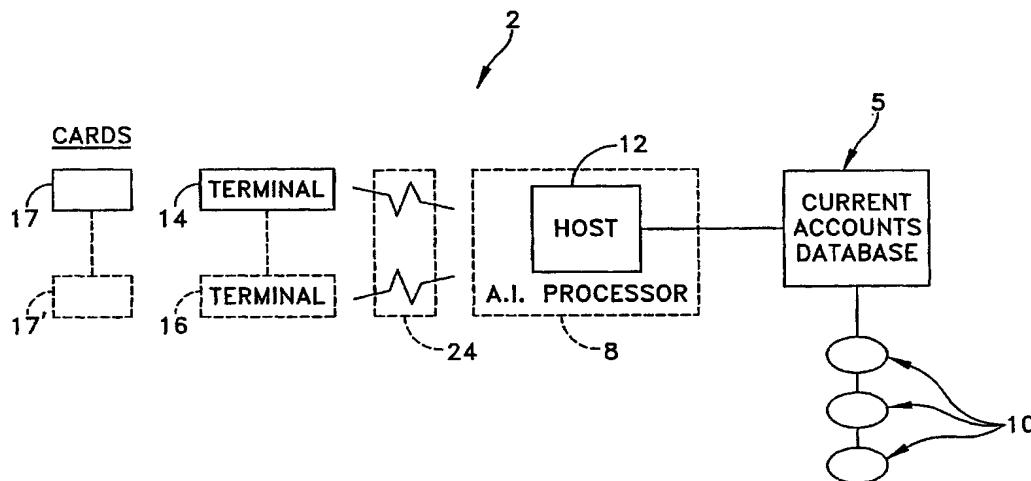
(57) Abstract: A pre-paid debit account system and method enables customers to make purchases anonymously. The system in-
cludes three main functional components: a plurality of current accounts, a host computer and associated account inquiry processor
and a plurality of activation/authorization terminals. Each of the accounts having a current account identifier associated with it, but
maintained independently of the personal or financial identity of the owner of the funds deposited in the current account. When
the system is implemented with a debit card, the card is typically formed of cardboard, paper or plastic and may include a machine
readable current account identifier. The main management and processing of the system is effected by the host computer. The host
includes a database for storing account identifiers associated with authorized accounts. The data terminals are remote from the host
computer and connectable for transmitting data between the terminals and the host computer. The system maintains the account
independently of owner's identity and allows for the purchase of goods and services from third parties.

Anonymous Debit Account System and Method

Field Of The Invention

The present invention generally relates to pre-paid debit account systems and more particularly to a pre-paid debit account system that maintains the account independently of the

5   owner's identity while allowing for the purchase of goods and services from third parties.

Background Of The Invention

Pre-paid debit account services are well-known in the art. For example, pre-paid telephone cards may be purchased directly from a service provider or from vending machines. A $10 telephone calling card may provide its holder with a certain number of minutes of long

10   distance telephone connection time from any touch-tone telephone to any location in a predesignated calling region, e.g., the United States, Europe, Japan, regardless of the time of the call; a $20 card provides twice that amount, etc. U.S. Patents Nos. 5,862,260; 5,828,740; 5,721,768; 5,699,528; 5,621,787, 4,877,947; 4,706,275 all disclose telephone cards of the type known in the art. Significantly, these prior art telephone cards provide a service that only

15   allows for the purchase of telecommunications services from one or more such providers and do not allow for the purchase of goods or services from third party providers of nontelecommunications products or services. Additionally, such cards may be easily traced to the original purchaser, since at least no efforts are made to protect the person's identity either at the time of purchase, or during use.

20   Prior art card systems are often batch-activated by the card provider in a limited number of predetermined values. A customer simply purchases one or more pre-activated cards by paying a fee. The card typically includes a predetermined identification code, which

may be obscured for security. To use the card, the customer accesses the service provider, typically via a datalink, and enters an identification code. When the preset value is expended the user may be prompted to add additional funds to the card, or the card may be terminated.

In the case of debit cards, banks and other financial institutions rely upon electronic

5   funds transfer ("EFT") systems that comprise a process of value exchange achieved through the banking system's centralized computer transactions. EFT services are a transfer of payments utilizing electronic "checks," which are used primarily by large commercial organizations. Examples of EFT systems that are utilized by retail and commercial organizations include Automated Clearing House (ACH) where a user can enter a

10   pre-authorized code and download information, with billing occurring later, and a Point Of Sale (POS) system where a transaction is processed by connecting with a central computer for authorization for the transaction granted or denied immediately. Examples of EFT systems and debit card systems are disclosed in U.S. Pat. Nos. 5,970,478; 5,963,917; 5,953,710; 5,914,472; 5,903,633; 5,884,289; 5,589,779; 5,850,599; 5,826,246; 5,812,668; 5,760,381; 5,732,136;

15   5,715,298; 5,637,845; 5,476,259; 5,459,304; 5,452,352; 5,448,045; 5,478,993; 5,455,407; 5,453,601; 5,465,291; and 5,485,510, which patents are incorporated herein by reference.

Significantly, current EFT systems, credit cards, or debit cards, which are used in conjunction with an on-line system to transfer money between accounts, such as between the account of a customer and that of a merchant, do not maintain the identity of the customer

20   strictly anonymous. Typical bank issued debit cards are linked to the user's checking and/or savings accounts. These cards, and their associated debit card numbers, are maintained in perpetuity. Thus, a user's debit card number is used on a continual basis to access funds from

the user's accounts.

Some pre-paid cards differ from bank issued debit cards in that the pre-paid cards have a cash value encoded on the card's magnetic strip. Similarly, smart cards contain semiconductor type memories encoded with a cash value or the like. These prepaid cards do not require a connection to a database, as do bank issued debit cards and credit cards, to determine if a transaction is within an available credit limit (for a credit card) or within an available balance (for a bank issued debit card). However, such prior art pre-paid debit cards present security risks, since the cash value is encoded directly on the card. Typically, there has not been any provision for the anonymity of the holder of the card when attempting to transact business electronically, e.g., during an e-commerce transaction via the Internet.

Other attempts to provide pre-paid cards in varying forms have become increasingly popular as a payment means for goods and services. Such cards have advantages both to the purchasers and to those offering the goods and services purchased utilizing the cards. For example, U.S. Patent No. 5,721,768 - Stimson, et al., discloses a prepaid-card system having a computer system operable to activate user cards and to authorize purchase requests from goods and services sellers. However, this type of system is not designed to protect the identity of the purchaser from commonly known tracking techniques used to track the purchaser's buying habits and/or identity.

Typical tracking techniques include computerized databases maintained by the card issuer and/or sellers which associate a user's credit and/or debit card numbers with all goods and services purchased using the card. These databases are then primarily used to track purchaser demographics or to target advertising and promotional materials specifically related

to the card user's buying habits. Virtually all consumer's are unwitting participant's in the growing trend towards computerized tracking of consumer buying habits, based on the consumer's credit or debit card numbers, as well as, all available personal information associated with these numbers.

5   The foregoing prior art systems have proved commercially successful and desirable. While these and other prior art systems have proven advantageous, they suffer from a significant drawback in that they do not provide for the anonymity of the users identity, especially during e-commerce transactions, via the Internet. Thus there is a need for a secure pre-paid debit account system and method that maintains the anonymity of the account owner

10   during all forms of financial and commercial transaction regardless of the exchange environment.

Summary Of The Invention

          The present invention provides a pre-paid debit account system and method that enables purchasers to create and fund an account that is maintained independently of the

15   identity of the purchaser, i.e., an anonymous current account, and to bill the cost of purchases from third party providers to that anonymous current account thereby fully protecting the purchasers identity. The system includes three main functional components: a plurality of single use current account identifiers (i.e., debit card numbers), a host computer with an associated account inquiry processor, and a plurality of activation/authorization terminals.

20   Each current account identifier may be wholly in electronic form, or may be memorialized as a portion of a debit card, which preferably includes a body portion and a read-only memory

stripe that stores the current account identifier. The card may be formed of cardboard, plastic

or the like.

In an alternative embodiment, the debit card is issued as an anonymous credit card,

having an anonymous user name (e.g., Cash) and an expiration date. The advantage of this

5   format is to provide a mechanism for user purchases using existing credit purchase interfaces

such as typical VISA and/or MASTERCARD credit processing equipment.

The main management and processing of the system is effected by the host computer,

which is connectable to a telephone or other data-interchange network. The host computer

includes a database for storing current accounts which temporarily associated with the current

10   account identifiers and personal identification numbers or names (referred to hereinout as

PINS) and the amount of currency deposited in each current account. The

activation/authorization terminals may be remote from the host computer and connected to the

host computer for transmitting data between the activation/authorization terminals, an account

inquiry processor and the host computer. Activation/authorization terminals can be in a

15   physical form such as an ATM machine or kiosk or the like, or in virtual form, accessible via

the Internet World Wide Web (i.e., via a web browser).

The account inquiry processor is generally coupled to the host computer and provides

a data communications interface (hardware and software) for receiving inquiries from the

activation/authorization terminals and one or more third party providers of goods or services,

20   via a data-interchange network. The account inquiry processor allows the host computer to

provide verification and authorization to the user or third parties regarding (i) the users's

current account identifier, (ii) the user's PIN and (iii) the amount of currency on hand in the

current account. The host computer, via the account inquiry processor, also provides a third

party provider of goods or services with a verification that the charge, being made by the card

user, will be paid.

When the present invention is practiced in connection with a physical debit card, each

5   activation/authorization terminal includes means (such as a card reader) for reading the debit

card to determine the current account identifier stored in the read-only memory, means (such

as a keypad) for entering a monetary amount to be deposited or withdrawn in connection with

the particular debit card and the owner's PIN, means (such as a modem) for dialing the host

computer to transfer the current account identifier, PIN, monetary amount, and means (such

10   as a display) for receiving and displaying a verification message from the host computer

authorizing receipt or disbursal of the monetary amount.

The activation/authorization terminals allow for variable authorization and debiting.

To maintain anonymity, each current account identifier is issued for a single use. Thus,

recharging of a particular card with an already active current account identifier is not possible.

15   Accordingly, the activation/authorization terminal is operable to transfer any residual cash

value from an existing card to a newly activated card account, with a new current account

identifier.

When the card reader cannot detect the current account number stored in the memory

(which may occur, for example, when a card has been damaged) or in the case of a virtually

20   issued debit card (as discussed below), the data terminal operator may manually enter the

current account identifier and PIN using a keypad to enable point-of-sale disbursal or transfer

of funds from the current account.

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A user may also activate, debit, or transfer residual value to a new pre-paid debit card

with an authorized currency amount at a virtual activation/authorization terminal. Such

terminals can be provided as a secure Internet World Wide Web site and function in the same

manner as a physical activation/authorization terminal. However, pre-paid debit cards issued

5   in virtual form, via the Internet, do not result in the issuance of a physical debit card. Rather,

the user is provided with a current account identifier which can be either written down or

printed out. A virtual debit card would be primarily used to purchase goods and services via

the Internet. The pre-paid debit card may then be used to purchase various goods and

services, anonymously, up to the monetary amount available in the particular current account.

10   The debit card can also be issued as an anonymous credit card with an associated

anonymous name and expiration date. This credit card format is advantageous in that the user

can make on-line purchases using existing web sites having on-line interfaces for existing

credit cards such as VISA and/or MASTERCARD. In making such an on-line purchase, the

user simply enters the required information as it appears on the debit card (i.e., card number,

15   name and expiration date). Sellers would not be required to modify their web sites in order

to accept purchases using anonymous cards produced in accordance with this aspect of the

invention.

Brief Description Of The Drawings

These and other features and advantages of the present invention will be more fully

20   disclosed in, or rendered obvious by, the following detailed description of the preferred

embodiments of the invention, which are to be considered together with the accompanying

drawings wherein like numbers refer to like parts and further wherein:

FIG. 1 is a block diagram of a pre-paid debit account system for purchasing a variety

of goods and services, anonymously, up to an authorized monetary amount, in accordance

with a preferred embodiment of the present invention;

5   FIG. 2 is a representative pre-paid debit card; and

FIG. 3 is a plan view of one of the activation/authorization terminals of FIG. 1,

showing the keypad, display and card swipe components of the unit.

Detailed Description Of The Preferred Embodiments

Referring Figs.1-3, a pre-paid debit account system and method 2 in accordance with

10   the present invention enables purchasers to create and fund a debit or current account 5 that

is maintained independently of the identity of the purchaser, i.e., an anonymous current

account, and to bill the cost of purchases from third party providers to that anonymous current

account without divulging the identity of the purchaser as a part of the transaction. Pre-paid

debit account system and method 2 includes a plurality of single use current account

15   identifiers 10, a host computer 12, a plurality of on-site activation/authorization terminals,

including physical activation/authorization terminals 14 and virtual activation/authorization

terminals 16, and an account inquiry processor 18.

Current account identifiers 10 will typically include a first string of alphanumeric

characters having a sufficient length to provide for a large plurality of distinct current account

20   identifiers to be established in the system. This first string of characters may be public or

semi-private as it alone will be insufficient to gain access to a specific current account 5

associated with the current account identifier 10. A second string of alphanumeric characters,

often referred to as a personal identification number or PIN, is also utilized in pre-paid debit

account system and method 2, as an owner's key to gain access to a specific current account

5   associated with the current account identifier 10. The PIN is account owner created, with

the identity of the owner being unknown and unnecessary to the operation of pre-paid debit

account system and method 2. The PIN will be maintained in secret by the owner of the

current account, and its relation to a particular current account 5 will be maintained only by

host computer 12. At no time will any personal or identifying information regarding the

owner of the funds deposited in current account 5 be connected directly to current account

10   identifier 10 thereby maintaining the identity of the owner of the funds in an anonymous

manner.

As seen in FIG. 2, in one embodiment of the invention a debit card 17 is used to access

an individual current account 5, and preferably includes a body portion 19 and a read-only

memory stripe 20 that stores, e.g., current account identifier 10. Other forms of machine

15   readable indicia can be used in place of the memory stripe 20, such as one or two dimensional

bar codes and the like. Debit card 17 is typically formed of cardboard, paper or plastic and

may also include a visible portion showing current account identifier 10 in clear text e.g., the

aforementioned first sequential listing of alphanumeric characters, or the like. If desired, a

smart debit card may be used to store current account identifier 10 in a semiconductor memory

20   or the like. In order to minimize the expense associated with producing physical debit cards,

it is preferable that pre-paid debit account system and method 2 be implemented with a read

only memory stripe or the like (i.e., so-called "dumb" or non-intelligent cards).

Referring again to Fig. 1, a pre-paid debit card 17' issued in virtual form, via the Internet, does not result in the issuance of a physical debit card 17. Rather, the user is provided with current account identifier 10 which can be either written down or printed out. Virtual debit card 17' would be primarily used to purchase goods and services via the Internet.

5 Virtual pre-paid debit card 17' may then be used to purchase various goods and services, anonymously, up to the monetary amount available in the particular current account.

The main management and processing of the system is effected by host computer 12, which is connectable to a telephone or other data-interchange network 24, via the account inquiry processor 18. Although in no way limiting, host computer 12 is preferably a general

10 purpose Intel Pentium based personal computer running a multi-tasking operating system, such as UNIX, LINUX, Microsoft Windows 95, 98 or NT. It will be understood that host computer 12 must include sufficient memory capacity to store a plurality of current accounts 5, maintained for all possible users of pre-paid debit account system and method 2.

Physical activation/authorization terminals 14 can be implemented using existing ATM

15 hardware such as units manufactured by NCR, Diebold or Fujitsu. In general, each activation/authorization terminal 14 includes a housing 26 in which a number of functional components are included, e.g., when used in connection with debit card 17, a card reader 28 including a card-swipe slot 30 for receiving debit card 17 is provided so that memory stripe 20 can be read. The unit also preferably includes a keypad 32 with various alphanumeric and

20 control keys, and a display 34. The unit also includes a modem 36 (shown in phantom) for connecting the device over a telephone line to host computer 12. Activation/authorization terminal 14 also includes appropriate circuitry (i.e., hardware and software) for controlling the

operation of the device, which circuitry is conventional and well known to those of ordinary skill in the art.

Virtual activation/authorization terminals 16 are essentially identical to terminals 14, however, a card reader is not provided. Such terminals can be provided as a secure Internet

5   World Wide Web site and function in the same manner as a physical activation/authorization terminal. However, it should be understood that pre-paid debit accounts or cards issued in virtual form, via the Internet, do not result in the issuance of a physical debit card. Rather, the user is provided with a current account identifier which can be either written down or printed out. A virtual debit card would be primarily used to purchase goods and services via the

10 Internet. The pre-paid debit card may then be used to purchase various goods and services, anonymously, up to the monetary amount available in the particular current account.

Physical activation/authorization terminals 14 can be installed at typical locations including stores, shopping outlets, financial institutions in the same fashion as known ATM kiosks. In fact, activation/authorization terminals 14 in accordance with the invention can be

15 incorporated   directly   into   existing   ATM   machines   or   the   like.   Generally, activation/authorization terminals 14 are remotely interconnected to host computer 12 via telephone or other data-interchange network (e.g., the Internet). For example, the user's current account 5 may be directly accessed, via the Internet, without the need for reading a debit card, by merely providing current account identifier 10 and the associated PIN number.

20 When used in connection with debit card 17, each activation/authorization terminal 14 includes: means (such as a card reader) for reading debit card 17 to determine the current account identifier 10 stored on the card; means (such as a keypad) for entering the user's PIN

and any monetary amount corresponding to an amount to be (i) credited to, or (ii) deducted

from, the user's current account 5; means for accepting a transfer of funds, e.g., in the form

of cash or EFT, for crediting to a newly created debit card, means (such as a modem) for

connecting to host computer 12 to transfer current account identifier 10 and the user's PIN;

5   and means (such as a display) for receiving and displaying a verification/authorization

message from host computer 12 authorizing/acknowledging the transaction. The

verification/authorization information from host computer 12 can include the acknowledgment

of the receipt of a monetary amount to be credited to the user's current account 5, or a

monetary amount to be deducted from the user's current account 5 in payment of the third

10   party transaction.

It will be understood that these particular input/output devices of

activation/authorization terminal 14 are merely exemplary, as other equivalent devices may

also be used with equal effect in connection with the present invention. For example, the card

reader may be replaced or supplemented with an optical scanner (to read one or two

15   dimensional bar codes or the like). When the card reader cannot detect current account

identifier 10 stored in memory, the verification/authorization terminal operator may enter

current account identifier 10 using the keypad to enable point-of-sale activation/authorization

or recharging of the card. Similarly, when the user is making an electronic purchase, current

account identifier 10 may be directly scanned, typed, or read into a computer system for

20   transfer over the Internet. Likewise, the keypad may be replaced or supplemented with a

voice recognition card connected to a microphone for providing limited speaker-independent

voice recognition of the current account identifier and PIN. The communications link need not

be made over a telephone line, but may be a cable modem, DSL (Digital Subscriber Line), wireless communication link, fiber optic or may include any other well-known means for establishing a communications or data-interchange link between two locations. The display itself may be aural as opposed to visual.

5   In an alternative embodiment, the debit card may be issued as an anonymous credit card, having an anonymous user name 21 (e.g., Cash) and an expiration date 22. The advantage of this format is to provide a mechanism for user purchases using existing credit purchase interfaces such as typical VISA and/or MASTERCARD credit processing equipment. This credit card format is advantageous in that the user can make on-line

10   purchases using existing web sites having on-line interfaces for existing credit cards such as VISA and/or MASTERCARD. In making such an on-line purchase, the user simply enters the required information as it appears on the debit card (i.e., card number, name and expiration date). Sellers would not be required to modify their web sites in order to accept purchases using debit cards produced in accordance with this aspect of the invention.

15   Significantly, at no time is the identity of the owner of current account 5 ever needed for the transaction to be consummated. Current account 5 is always maintained without any connection to the identity of the user, other than for the connection between the PIN and current account identifier 10 that is created exclusively by the user of the system at the time current account 5 is created. All current account identifiers are assigned for a single use, or

20   single transfer of funds into the user's account. Thus, recharging of a particular card with an already active current account identifier is not possible. Accordingly, activation/authorization terminal 14 is operable to transfer any residual cash value from an existing card to a newly

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activated card, with a new current account identifier 10. In this way, the user's identity and

any personal information is protected from unauthorized access or use. Further, it is no longer

possible to track a given user's buying habits by logging purchases associated with a given

debit card number, since the user will receive a new current account identifier 10 each time

5   funds are transferred to the user's account.

Referring again to Fig. 1, account inquiry processor 18 is controlled by host computer

12 for receiving inquiries, from activation/authorization terminals 14 or one or more third

party providers of goods or services. Account inquiry processor 18 provides a data interface

to host computer 12 so that the user and third parties can obtain verification and authorization

10   of (i) the users's current account number, (ii) the user's PIN and (iii) the amount of currency

on hand in the current account. Account inquiry processor 18 also allows host computer 12

to provide third party providers of goods or services with a verification that the charge, being

made by the owner of the current account identifier and PIN, will be paid.

In a preferred embodiment, account inquiry processor 18 includes dedicated hardware

15   and software for interfacing each of physical and virtual activation/authorization terminals

14,16 as well as third party sellers of goods and services to host computer 12 via a telephone

or data-interchange network (e.g., the Internet). Account inquiry processor 18 can be linked

to activation/authorization terminals 14 and the third party sellers via conventional means such

as a known telephone interfaces (e.g., analog, ISDN and T1) and/or known data exchange

20   protocols (e.g., TCP/IP). For example, account inquiry processor 18 can include one or more

commonly available call processing boards for sending and receiving information via standard

digital and analog telephone lines, e.g., Dialogic D/4x multi-port voice boards which include

support for a plurality of analog or digital telephone lines. Such interfaces and associated

software are readily available and are well known to those of ordinary skill in the art. In the

alternative, the current account processor 18 can be directly integrated into host computer 12.

One embodiment of pre-paid debit account system and method 2 operates as follows.

5   The user of an active debit card (i.e., having a current account identifier and PIN associated

with an active current account) presents his or her card for use in connection with purchasing

goods or services. The seller contacts host computer 12, via account inquiry processor 18, via

a conventional means such as dedicated telephone number (such as an 800 number), similar

to a conventional credit transaction. Upon connection, the user or seller is prompted to enter

10 the requested cash fund transfer amount and current account identifier 10. The user is

prompted to enter his or her PIN in a secure fashion. Typically, the user's PIN is entered via

a secure keypad so that the PIN remains confidential. No other user identifying information

is requested or required for pre-paid debit account system and method 2 to operate.

Host computer 12 checks the current account identifier and PIN that have been

15 entered, determines the validity of the PIN, and whether an active current account is

associated with the current account identifier. Assuming the current account identifier and

PIN are valid and an active current account exists, the account inquiry processor verifies

whether the current account contains adequate funds and provides authorization for the

transaction. If the current account balance is sufficient to conclude to proposed transaction

20 with a third party provider of goods or services, host computer 12 acknowledges the same in

response to the inquiry and authorizes the purchase by issuing an authorization code and/or

message (transferred from host computer 12 via account inquiry processor 18 to the seller).

Authorization codes are generally known to those skilled in the art and typically include a text

message and numeric code such as "Approved 00123".

5   If the current account identifier or PIN are not valid or, host computer 12 issues an

appropriate message which states that the transaction is declined (e.g., "current account

identifier or PIN invalid"), as the case may be. When the balance is insufficient for the

particular transaction, or is exhausted, host computer 12 issues an appropriate message which

states that the transaction is declined (e.g., "Declined - debit limit exceeded").

In the case of an initial interaction with pre-paid debit account system and method 2,

10   an account identifier 10 will be assigned to that user, who will then associate his or her own

PIN with it.

Example

The following is a typical new account activation scenario. Pre-paid debit account

system 2 is accessed by the user via an activation/authorization terminal. The user requests

15   a new debit card funded with $100.00, e.g., the user purchases a new anonymous debit card,

via cash, a check, a credit or non-anonymous debit card of the types known in the art. The

amount of the transaction and the user's PIN number is entered on the keypad. At this point

the activation/authorization terminal 14 contacts host computer 12, e.g., via modem 36 or the

Internet or other data-interchange network. After communicating with host computer 12, via

20   account inquiry processor 18, the requested information is transmitted from

activation/authorization terminal 14 to host computer 12. Host computer 12 validates the

transfer of funds, assigns current account identifier 10 and associates the user's PIN with a

current account 5.   Host computer 12 then transmits a verification to the

activation/authorization terminal and a suitable message is displayed (e.g., $100.00 transferred

to debit card). The user is then issued a debit card with the assigned current account identifier

5. In the case of a virtual activation/authorization terminal, the user initiates the process, via

5   the Internet, using a typical personal computer linked to the Internet. In this case, a physical

debit card is not issued however, the user may write down or print out current account

identifier 10.

If the customer desires to pay using a credit card which itself needs to be verified,

activation/authorization terminal 14 may also be used for this purpose although no cross-

10   reference between the personal data associated with the credit card and current account 5 is

ever maintained or stored by activation/authorization terminal 14 or host computer 12. It

should be further noted that activation/authorization terminals 14 may be implemented in

existing payment terminals such as credit card, ATM or money order machines, and these

existing payment terminals may be modified to accept other forms of payment, such as cash

15   or electronic funds transfers.

The operation of pre-paid debit account system and method may now be described. In

a preferred purchase scenario, the user of an activated current account 5 makes his purchase

of a particular service or good, and provides the card or account identifier 10 for a virtual card

transaction over the internet, to a representative of the selling party. The seller or user is

20   prompted to enter account identifier 10 and PIN. Account identifier 10 and PIN may be

entered by a magnetic card reader, manual entry or any other well known method. Entry of

account identifier 10 enables access to account inquiry processor 18, via a dedicated

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purchasing network, such as a telephone 800 number, Internet or other well-known type of

communications method. A purchase amount is also entered indicating the amount of a

desired purchase. Host computer 12 checks the database for the current account 5 associated

with current account identifier 10 and PIN that have been received, and notifies the seller

5   and/or user if a sufficient balance is present to make the desired purchase. If a sufficient

balance is not available, host computer 12 may issue a receipt or message indicating the

available balance. If a sufficient balance is present, host computer 12 deducts the entered

purchase amount from the current account balance and associates an authorization code with

the purchase. The seller then completes the sale to the user. In a preferred embodiment, the

10   user is then provided with a receipt indicating the remaining balance in their current account

5. In the case of on-line or Internet based purchases, the user simply enters the current

account identifier and PIN into the seller's computer system, via the seller's secure Internet

web site.

It is to be understood that the present invention is by no means limited only to the

15   particular constructions herein disclosed and shown in the drawings, but also comprises any

modifications or equivalents within the scope of the claims.

What Is Claimed Is:

1. A pre-paid debit account system used to purchase goods and services anonymously, said prepaid debit account being activated at a point-of-sale location, the system comprising:

a database having a plurality of reusable pre-paid debit accounts located remote from the point-of-sale location;

at least one debit card having a single use current account identifier temporarily associated with a particular pre-paid debit account from the plurality of reusable pre-paid debit accounts;

an activation/authorization terminal having an associated data comminations interface coupled to a data-interchange network, the activation/authorization terminal being located at each said point-of-sale location, the activation/authorization terminal being used to transfer activation/authorization information associated with said particular pre-paid debit account from said point-of-sale location to said remote location via the data-interchange network, the activation/authorization information being used to identify said particular pre-paid debit account, said particular pre-paid debit account being maintained independently of the identity of the purchaser;

a processing unit coupled to said database of prepaid debit accounts, said processing unit activating said particular pre-paid debit account in response to receipt of said activation/authorization information by temporarily associating said current account identifier with the particular pre-paid debit account; and

a data communications interface coupled to the processing unit and the data-interchange network, said processing unit receiving information via the data-interchange

network used to identify said particular pre-paid debit account, the processor authorizing the

charging of an amount to said particular pre-paid debit account in correspondence with a

purchase of goods or services from a third party.

2. The system according to claim 1 further comprising a PIN associated with said

current account identifier, the processing unit being operable to verify the validity of the PIN

and the current account identifier prior to authorizing the charging of an amount to said

particular pre-paid debit account in correspondence with a purchase of goods or services from

a third party.

3. The system according to claim 1 wherein the at least one debit card is at least one

of a physical debit card and a virtual debit card.

4. The system according to claim 1 wherein the activation/authorization terminal is at

least one of a physical activation/authorization terminal and a virtual activation/authorization

terminal.

5. The system according to claim 1 further comprising a means for funding said

particular pre-paid account from at least one of a source of cash, a credit account and a bank

account, wherein said activation/authorization information associated with said particular pre-

paid debit account includes information regarding the funding of the particular pre-paid debit

account.

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6. The system according to claim 1 further comprising a second debit card having a second current account identifier temporarily associated with a second pre-paid debit account, and means for funding said particular pre-paid account using funds from the second particular pre-paid debit account, said processor increasing an amount associated with said particular pre-paid account using information from said second particular pre-paid debit account.

7. The system according to claim 1 wherein the at least one debit card further comprises an anonymous user name and an expiration date.

8. A method to enable consumers to obtain pre-paid debit accounts from a plurality of point-of-sale locations and to use said pre-paid debit accounts to purchase goods and services anonymously comprising:

providing a database having a plurality of reusable pre-paid debit accounts located remote from the point-of-sale location;

providing at least one debit card having a single use current account identifier temporarily associated with a particular pre-paid debit account from the plurality of reusable pre-paid debit accounts;

providing an activation/authorization terminal having an associated data communications interface coupled to a data-interchange network, the activation/authorization terminal being located at each said point-of-sale location, the activation/authorization terminal transferring activation/authorization information associated with said particular pre-paid debit account from said point-of-sale location to said remote location via the data-interchange

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network, the activation/authorization information being used to identify said particular pre-paid debit account, said particular pre-paid debit account being maintained independently of the identity of the purchaser;

providing a processing unit coupled to said database of prepaid debit accounts, said processing unit activating said particular pre-paid debit account in response to receipt of said activation/authorization information by temporarily associating said current account identifier with the particular pre-paid debit account; and

providing a data communications interface coupled to the processing unit and the data-interchange network, said processing unit receiving information via the data-interchange network used to identify said particular pre-paid debit account, the processing authorizing the charging of an amount to said particular pre-paid debit account in correspondence with a purchase of goods or services from a third party.

9. The method according to claim 8 further comprising providing a PIN associated with said current account identifier, the processing unit being operable to verify the validity of the PIN and the current account identifier prior to authorizing the charging of an amount to said particular pre-paid debit account in correspondence with a purchase of goods or services from a third party.

10. The method according to claim 8 further comprising providing a means for funding said particular pre-paid account from at least one of a source of cash, a credit account and a bank account, wherein said activation/authorization information associated with said particular

pre-paid debit account includes information regarding the funding of the particular pre-paid debit account.

11. The method according to claim 8 further comprising a second debit card having a second current account identifier temporarily associated with a second pre-paid debit account, and a means for funding said particular pre-paid account using funds from the second particular pre-paid debit account, said processor increasing an amount associated with said particular pre-paid account using information from said second particular pre-paid debit account.
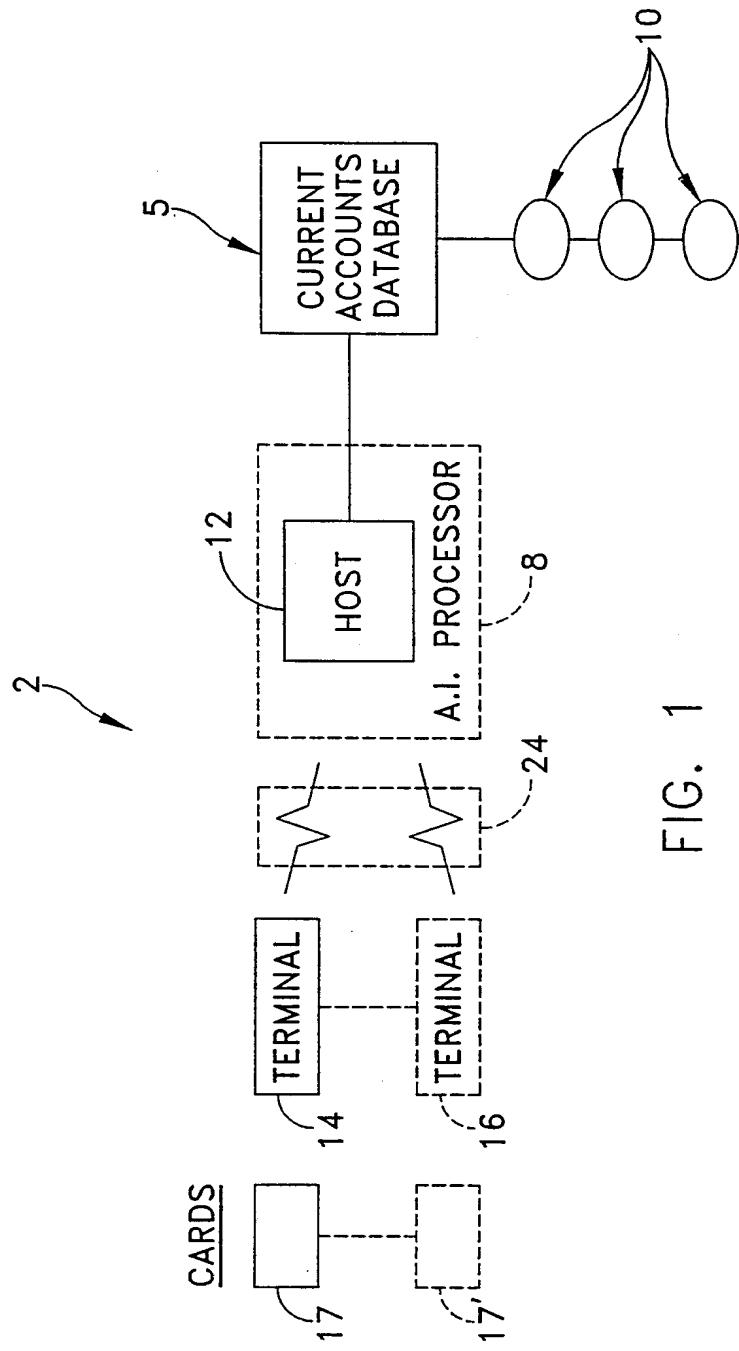
FIG. 1
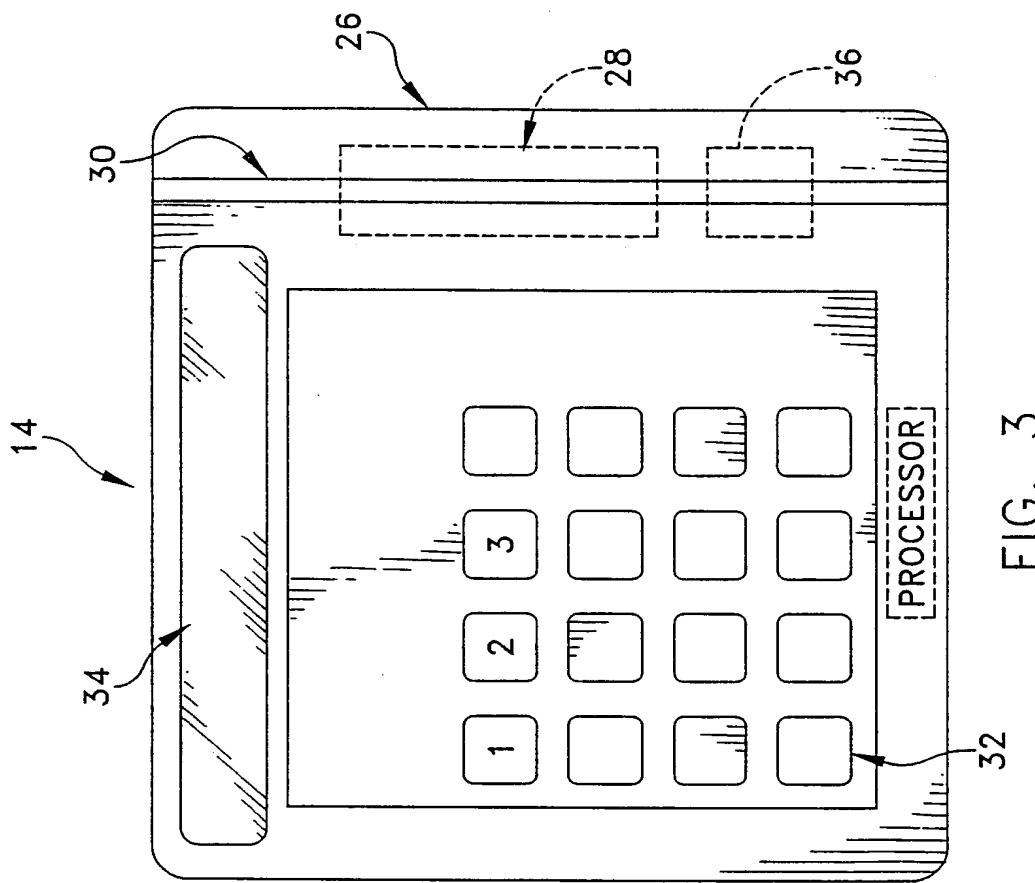
FIG. 3
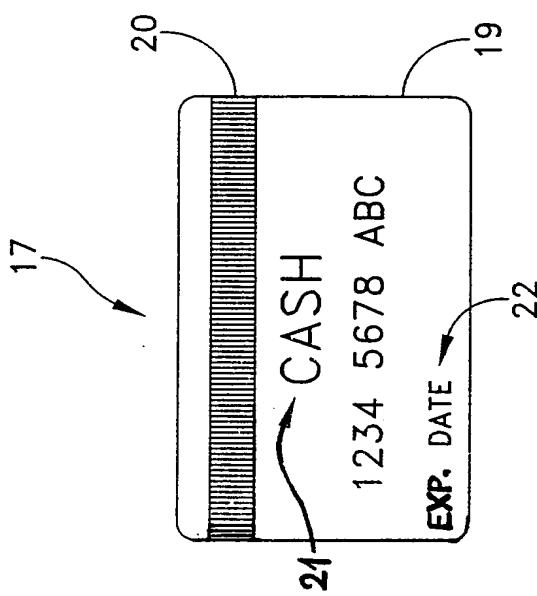
FIG. 2

INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7   G07F7/08   G07F7/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7   G07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 477 038 A (CLARK HELEN ET AL) 19 December 1995 (1995-12-19) column 2, line 6 -column 3, line 1; figure 3	1,2,5, 7-10
Y	column 4, line 30 - line 67	3,4
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A	US 5 914 472 A (FOLADARE MARK JEFFREY ET AL) 22 June 1999 (1999-06-22) claim 1	1-11
Y	EP 0 786 747 A (FRANCE TELECOM) 30 July 1997 (1997-07-30) claim 1	3,4

☐ Further documents are listed in the continuation of box C.   ☒ Patent family members are listed in annex.

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
2 April 2001	10/04/2001

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Beauce, G

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